SMART CONTRACT SECURITY AUDIT

MAY

28

PROFESSIONAL | RIGOROUS | STRONG
SECURITY | COMPLIANCE

BSCFA
FOUNDATION·ASSOCIATION

Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you **should not** rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been Revieved.

Audit details:

Audited project: UKA DOGE COIN

Total supply: 100,000,000,000,000

Token ticker: UDOGE

Decimals: 18

Contract address: 0x698111b771363B81D1179AD102e3d8B9cD093a11 Languages: Solidity (Smart contract)

Platforms and Tools: Remix IDE, Truffle, Truffle Team, Ganache, Solhint, VScode, Mythril, Contract Library

Compiler Version: v0.6.12+commit.27d51765

Optimization Enabled: Yes with 200 runs

Contract Deployer Address: 0x655c49D4a6a62c23d7AFe5aFFA0b3bE40d10d945

Blockchain: Binance Smart Chain

Project website: https://ukadoge.com/

The audit items and results:

(Other unknown security vulnerabilities are not included in the audit responsibility scope)

Audit Result: Passed

Audit Date: May 25, 2022

AuditTeam:BSCFA

https://www.bscfa.global/

Introduction
Auditing Approach and Methodologies applied

The BSCFA team has performed rigorous testing of the project starting with analyzing the code design patterns in which we reviewed the smart contract architecture to ensure it is structured and safe use of third-party smart contracts and libraries.
Our team then performed a formal line by line inspection of the Smart Contract to find any potential issue like race conditions, transaction-ordering dependence, timestamp dependence, and denial of service attacks.
In the Unit testing Phase, we coded/conducted custom unit tests written for each function in the contract to verify that each function works as expected.
In Automated Testing, we tested the Smart Contract with our in-house developed tools to identify vulnerabilities and security flaws.
The code was tested in collaboration of our multiple team members and this included -

- Testing the functionality of the Smart Contract to determine proper logic has been followed throughout the whole process.
- **Ana**lyzing the complexity of the code in depth and detailed, manual review of the code, lineby-line.
- Deploying the code on testnet using multiple clients to run live tests.
- Analyzing failure preparations to check how the Smart Contract performs in case of any bugs and vulnerabilities.
- Checking whether all the libraries used in the code are on the latest version.
- Analyzing the security of the on-chain data.

Audit Goals

The focus of the audit was to verify that the Smart Contract System is secure, resilient and working according to the specifications. The audit activities can be grouped in the following three categories:
Security
Identifying security related issues within each contract and the system of contract.
Sound Architecture
Evaluation of the architecture of this system through the lens of established smart contract best practices and general software best practices.
Code Correctness and Quality
A full review of the contract source code. The primary areas of focus include:

- Accuracy
- Readability
- Sections of code with high complexity
- Quantity and quality of test coverage

Issue Categories

Every issue in this report was assigned a severity level from the following:
High level severity issues
Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.
Medium level severity issues
Issues on this level could potentially bring problems and should eventually be fixed.
Low level severity issues
Issues on this level are minor details and warnings that can remain unfixed but would be better fixed at some point in the future.

Manual Audit:
For this section the code was tested/read line by line by our developers. We also used Remix IDE's JavaScript VM and Kovan networks to test the contract functionality.

Automated Audit
Remix Compiler Warnings
It throws warnings by Solidity's compiler. If it encounters any errors the contract cannot be compiled and deployed. No issues found.

Issues Checking Status

SWC ID	Description	Checking status
SWC-100	Function Default Visibility	Passed
SWC-101	Integer Overflow and Underflow	Passed
SWC-102	Outdated Compiler Version	Passed
SWC-103	Floating Pragma	Passed
SWC-104	Unchecked Call Return Value	Passed
SWC-105	Unprotected Ether Withdrawal	Passed
SWC-106	**Unprotected SELFDESTRUCT Instruction**	**Passed**
SWC-107	Reentrancy	Passed
SWC-108	State Variable Default Visibility	Passed
SWC-109	Uninitialized Storage Pointer	Passed
SWC-110	Assert Violation	Passed
SWC-111	Use of Deprecated Solidity Functions	Passed
SWC-112	Delegatecall to Untrusted Callee	Passed
SWC-113	**DoS with Failed Call**	**Passed**
SWC-114	Transaction Order Dependence	Passed
SWC-115	Authorization through tx.origin	Passed
SWC-116	Block values as a proxy for time	Passed
SWC-117	Signature Malleability	Passed
SWC-118	Incorrect Constructor Name	Passed
SWC-119	Shadowing State Variables	Passed
SWC-120	**Weak Sources of Randomness from Chain Attributes**	**Passed**
SWC-121	Missing Protection against Signature Replay Attacks	Passed
SWC-122	Lack of Proper Signature Verification	Passed
SWC-123	Requirement Violation	Passed
SWC-124	Write to Arbitrary Storage Location	Passed
SWC-125	Incorrect Inheritance Order	Passed
SWC-126	Insufficient Gas Griefing	Passed
SWC-127	**Arbitrary Jump with Function Type Variable**	**Passed**
SWC-128	DoS With Block Gas Limit	LOW
SWC-129	Typographical Error	Passed
SWC-130	Right-To-Left-Override control character (U+202E)	Passed
SWC-131	Presence of unused variables	Passed
SWC-132	Unexpected Ether balance	Passed
SWC-133	Hash Collisions With Multiple Variable Length Arguments	Passed
SWC-134	**Message call with hardcoded gas amount**	**Passed**
SWC-135	Code With No Effects	Passed
SWC-136	Unencrypted Private Data On-Chain	Passed

Owner privileges

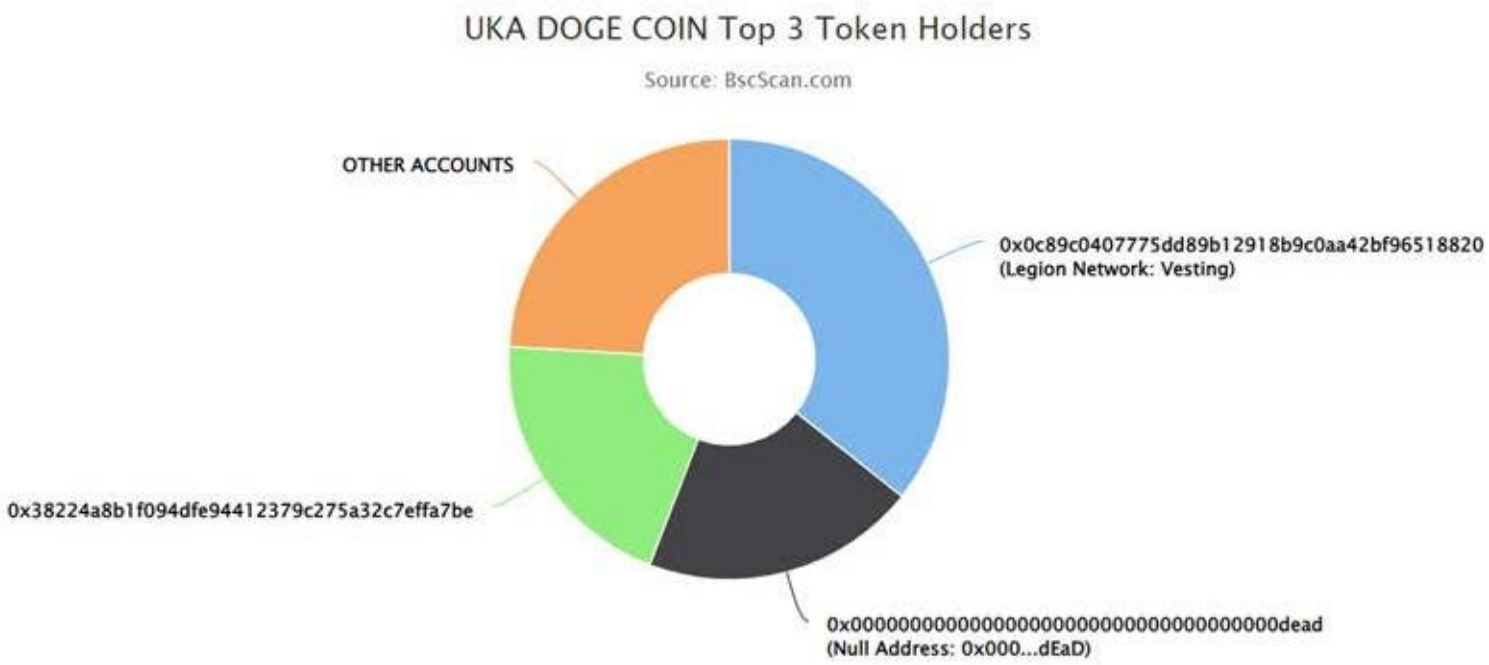
496 renounceOwnership
505 transferOwnership
519 lock
629 changeAdvestisementWallets
633 changeBurnWallets
763 excludeFromReward
772 includeInReward
809 excludeFromFee
813 manageAmmPairs
817 includeInFee
821 setTaxFeePercent
829 setBurnFee
833 setAdvestisementFeePercent
841 setMaxTxPercent
1022 turnOffAntibotMode
1026 setAirdropContract
1030 setAntibotModeWhitelist
1184 modifyBlackList

Top Token Holders

At the time of the audit

The top 3 holders collectively own 75.89% (75,889,826,365,631.90 Tokens) of UKA DOGE COIN

Token Total Supply: 100,000,000,000,000.00 Token | Total Token Holders: 346



(A total of 75,889,826,365,631.90 tokens held by the top 3 accounts from the total supply of 100,000,000,000,000.00 token)

Rank	Address	Quantity (Token)	Percentage
1	Legion Network: Vesting	35,702,243,098,327.879268648889197141	35.7022%
2	Null Address: 0x000...dEaD	20,187,583,267,304.023035555093577666	20.1876%
3	0x38224a8b1f094dfe94412379c275a32c7effa7be	20,000,000,000,000	20.0000%

KYC/Doxx

At the time of the audit, there is no information about the conduct of KYC / Doxx

Owner can set fees without limit

```
function setTaxFeePercent(uint256 buyTaxFee, uint256 sellTaxFee)
  external
  onlyOwner {
  _buyTaxFee = buyTaxFee;
  _sellTaxFee = sellTaxFee;  }
function setBurnFee(uint256 fee) external onlyOwner {
  _burnFee = fee;  }
function
  setAdvestisementFeePercent(uint256
  buyAdvestisementFee,
  uint256 sellAdvestisementFee) external onlyOwner {
  _sellAdvestisementFee  =  sellAdvestisementFee;
  _buyAdvestisementFee = buyAdvestisementFee;    }
  uint256 tTransferAmount =
    tAmount.sub(tFee).sub(tAdvertisement).sub(tBurn
```

No mint function found

Owner can set max tx amount without limit

```
function setMaxTxPercent(uint256 maxTxPercent) external onlyOwner {
  _maxTxAmount = _tTotal.mul(maxTxPercent).div(10**3);     }
```

Owner cannot pause trading

DEAD wallet is a physical wallet and can be changeв by the owner

```
address public DEAD_ADDRESS =
  0x40aCd2C757F9FAfE1bcE9da182Fd000177172bE1;
function changeBurnWallets(address wallet) public onlyOwner
  { DEAD_ADDRESS = wallet; }
```

Out of gas

Issues:

includeInReward(), getRate() and _getCurrentSupply()

The function includeInReward(),getRate() and _getCurrentSupply() also uses the loop for evaluating total supply and reflect rate. It also could be aborted with OUT_OF_GAS exception if there will be a long excluded addresses list.

Recommendation:

Check that the addresses array length is not too big.

Note:

Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner. The analysis of the contract does not give complete security and includes only the analysis that is indicated in the report. We do not analyze locked tokens or LP tokens, the presence of KYC in other companies, and so on. Also, our audit is not a recommendation for investment. All responsibility for the loss of investment lies with you!